V_{DD}

$P1$ V_{B1} $P2$

$I1$ SIGNAL_OUT

V_{ref} $N1$ $N2$ SIGNAL_IN

V_{SS}

100   200

FIG. 1 - Prior Art

V_{DD}

$P11$ V_{B11} $P12$

$I11$ SIGNAL_OUT1

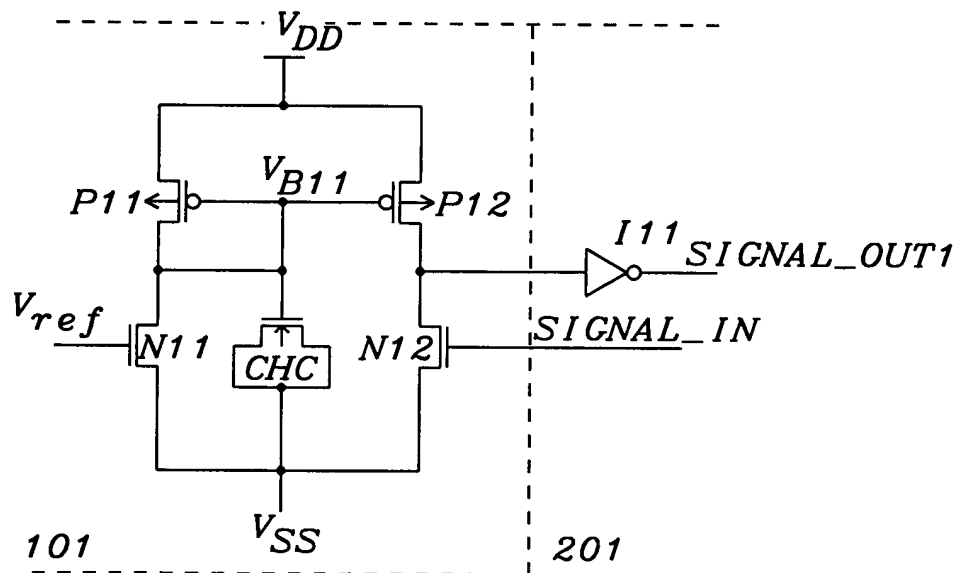V_{ref} $N11$ CHC $N12$ SIGNAL_IN

V_{SS}

101   201

FIG. 2

$$Jitter\_rise = \triangle 1 - \triangle 2$$
$$V_{1M} = V_{ref} + 350mV$$
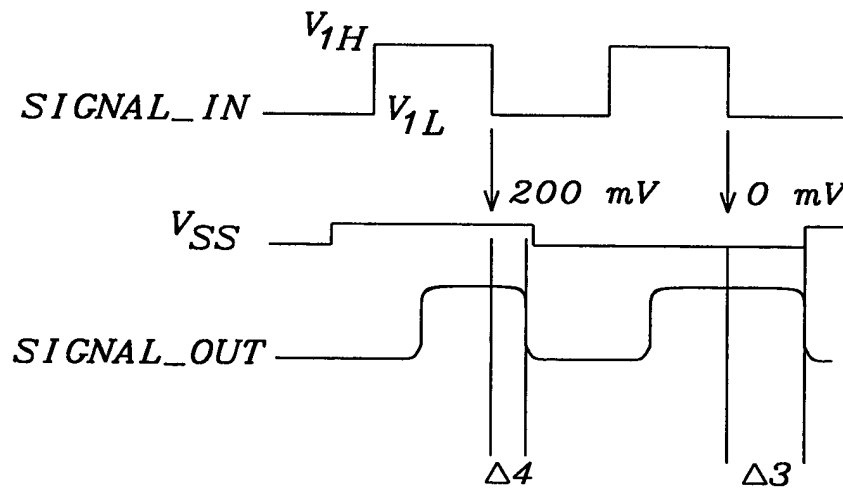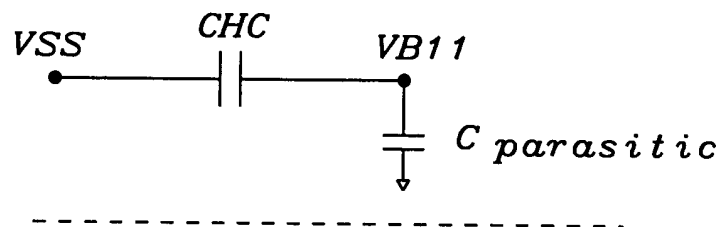$$V_{1L} = V_{ref} - 350mV$$
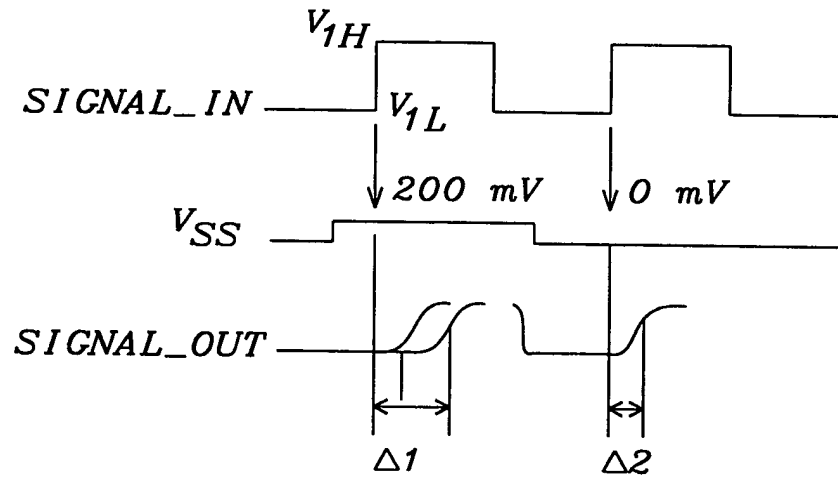
FIG. 3A

$$Jitter\_fall = \triangle 3 - \triangle 4$$
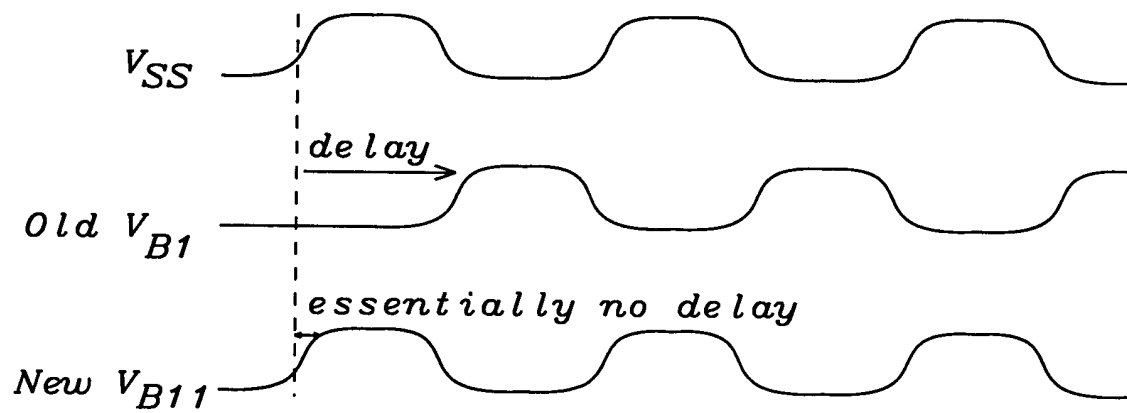

FIG. 3B

VSS   CHC   VB11

$C_{parasitic}$

FIG. 4A

V_{SS}

delay →

Old V_{B1}

essentially no delay

New V_{B11}

FIG. 4B